Portland Water Bureau

The Bull Run watershed is Portland, Oregon's drinking water source.

Appendix C—Future Regulations Not Included in the Total Need

In the future, EPA may set new or revised safety standards for additional contaminants. Future regulations being considered under the SDWA are for radon and other radionuclides, arsenic (revision), and sulfate. Needs for these future regulations are not included as part of the total need in this report because regulatory scenarios and cost estimates have not been finalized. New or revised standards for these contaminants may result in needs ranging between $1.7 billion and $14.8 billion, depending on how they are regulated. Exhibit C-1 shows the estimated range of need by regulation. Needs for the Ground Water Disinfection Rule, which is a priority for regulation, are not included in this report because cost estimates have not been developed.

Exhibit C-1: Estimated Need for Future Regulations Not Included in the Total Need (in millions of Jan. '95 dollars)

Regulation/ Contaminant	Range of Options		Range of Need Estimate	
	Least Stringent	Most Stringent	Low Estimate	High Estimate
Radon	3,000 pCi/l	200 pCi/l	$102.1	$2,594.9
Radionuclides other than Radon	varies by contaminant	varies by contaminant	$1,270.8	$4,587.1
Arsenic	20 µg/l	2 µg/l	$278.9	$7,126.8
Sulfate	500 mg/l, alt. source for infants/public ed.	500 mg/l, central treatment required	$27.9	$460.3
Total			**$1,679.7**	**$14,769.1**

EPA has analyzed a range of alternatives for regulating radon and the other radionuclides—radium-226, radium-228, uranium, adjusted gross alpha, and beta and photon emitters. The high and low cost estimates in Exhibit C-1 reflects costs for regulating radon at 200 pCi/l and 3,000 pCi/l. Exhibit C-1 also shows cost estimates for regulating radium-226 and radium-228 at 5 pCi/l and 20 pCi/l, uranium at 20 μg/l and 80 μg/l, and adjusted gross alpha at 15 pCi/l. No capital costs are expected to be associated with beta and photon emitters.

Arsenic is currently regulated at 50 μg/l, but EPA has analyzed the cost of regulating this contaminant at a more stringent level. Exhibit C-1 shows estimated costs for regulating arsenic at levels of 2 μg/l and 20 μg/l.

EPA has proposed four alternatives for regulating sulfate at 500 mg/l. The least capital-intensive options (reflected in the low cost on Exhibit C-1) require water systems with high sulfate levels to provide alternative sources of water to infants and, under one scenario, provide public education to exposed adults. The most capital-intensive option (reflected in the high cost on Exhibit C-1) requires central treatment, which is usually reverse osmosis.